

CLAIMS

What is claimed is:

5 1. An apparatus for effecting separation of liquid from solids or solids from liquid comprising a frame supporting a belt or belts held by and between rollers with drive means so as to progress each belt through a collection zone to a compression zone, where at the collection zone the belt or belts are positioned and orientated and shaped and caused to be changed in shape from an upstream position to a downstream position, providing thereby a supporting shape to hold liquid, one part of which shape is defined at a downstream location by a coming together of facing surfaces of one or more of the belts.

10 2. An apparatus for effecting separation of liquid from solids or solids from liquid comprising a frame supporting a belt held by and between rollers with drive means so as to progress the belt through a collection zone to a compression zone, where at the collection zone the belt is positioned and orientated and shaped and caused to be changed in shape from an upstream position to a downstream position, providing thereby a supporting shape to hold liquid, one part of which shape is defined at a downstream location by a coming together of facing surfaces of one or more of the belts, and wherein the belt is supported so as to be caused to change its shape as it progresses through the collection zone from an approximately planar shape to one where the belt is folded to have

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the previously upper surface on one side of the belt being pushed together with the previously upper surface on an opposite side of the belt.

5 3. The apparatus of claim 2 wherein the belt is supported so as to be caused to change its shape as it progresses through the collection zone from an approximately planar shape which is supported so as to provide a substantially horizontal alignment of its uppermost surface when viewed in a lateral direction to one where the belt is folded to have the previously upper surface on one side of the belt being pushed together with the previously upper surface on an
10 opposite side of the belt so that the respective upper surfaces of the sides are aligned to be approximately vertical at the nipping alignment and where the uppermost sides of the belt at the nipping location are at a height that is a similar or lower height than the upper surface at commencement location of the collection zone.

15 4. Wherein the belt is supported so as to be caused to change its shape as it progresses through the collection zone from an approximately planar shape which is supported so as to provide a substantially horizontal alignment of its uppermost surface when viewed in a lateral direction to one where the belt is
20 folded to have the previously upper surface on one side of the belt being pushed together with the previously upper surface on an opposite side of the belt so that the respective upper surfaces of the sides are aligned to be approximately

vertical at the nipping location are at a height that is a similar or lower height than the upper surface at commencement location of the collection zone.

5 5. The apparatus of claim 1 wherein the frame further includes guides supporting the belt where the belt is progressing from the unfolded to the folded position.

10 6. The apparatus of claim 1 wherein the belt constructed at least in part of a porous or permeable material.

15 7. The apparatus of claim 1 wherein the belt is a filter belt and has a middle portion which extends lengthwise along the belt which is more pliable than a remainder of the belt to facilitate a folding of the belt about this portion.

20 8. The method of claim 7 wherein respective surfaces of each respective side of the belt are brought together to effect a nipping pressure one against the other to thereby apply pressure to material as it is progressively caught there between.

25 9. The apparatus of claim 2 where the belt is a filter belt and has a middle portion which extends lengthwise along the belt which is more pliable than a remainder of the belt to facilitate a folding of the belt about this portion.